



Highlights of GAO-10-858T, a testimony before the Subcommittee on Investigations and Oversight, Committee on Science and Technology, House of Representatives

Why GAO Did This Study

Environmental satellites provide data used for weather forecasting, measuring variations in climate over time, and predicting space weather. Due to the continuing cost, schedule, and tri-agency management challenges of the National Polar-orbiting Operational Environmental Satellite System (NPOESS)—a key satellite acquisition managed by the National Oceanic and Atmospheric Association (NOAA), the Department of Defense (DOD), and the National Aeronautics and Space Administration (NASA)—the White House's Office of Science and Technology Policy (OSTP) decided in February 2010 to disband NPOESS and, instead, to have NOAA and DOD undertake separate acquisitions.

GAO was asked to summarize its report being released today on plans for NOAA's and DOD's separate acquisitions and the key risks of the transition, as well as its recent work on federal efforts to establish long-term strategies for satellite-provided climate and space weather data.

What GAO Recommends

In its reports, GAO recommended that NOAA and DOD address key transition risks, and that the President's Assistant for Science and Technology implement interagency strategies for the long-term provision of environmental observations. NOAA and DOD agreed, while the Assistant's office neither agreed nor disagreed, but noted its plan to develop a strategy for earth observations.

View GAO-10-858T or key components. For more information, contact David A. Powner at (202) 512-9286 or pownerd@gao.gov.

ENVIRONMENTAL SATELLITES

Planning Required to Mitigate Near-term Risks and Ensure Long-term Continuity

What GAO Found

OSTP's decision to disband NPOESS came at a time when the program's cost estimate had more than doubled—to over \$15 billion, the launch date for a demonstration satellite had been delayed by over 5 years, and the tri-agency management structure had repeatedly proven to be ineffective. To implement the decision, NOAA and DOD have begun planning for separate acquisitions to replace NPOESS. NOAA has developed preliminary plans for its new program—called the Joint Polar Satellite System—to meet the requirements of the afternoon NPOESS orbit. DOD expects to make final decisions on the spacecraft and sensors in August 2010. However, because neither agency has completed its plans, the impact of the decision to disband the program on the expected costs, schedules, and capabilities has not yet been determined. Moving forward, the agencies face key risks in transitioning from NPOESS to their separate programs, including the loss of key staff and capabilities, delays in negotiating contract changes and establishing new program offices, the loss of support for the other agency's requirements, insufficient oversight of new program management, and cost growth resulting from contract and program changes. While NOAA and DOD are establishing plans for their new programs, the development of key NPOESS components is continuing. However, the launch date of the demonstration satellite—to be used operationally to ensure climate and weather data continuity—has been delayed by 9 months, and the program has slowed down work on all development activities. Until the transition risks are effectively mitigated, and unless components are able to continue scheduled development, it is likely that launch dates will continue to be delayed. Further delays are likely to jeopardize the availability and continuity of critical weather and climate data.

For over a decade, the climate community has clamored for a national interagency strategy that coordinates agency priorities, budgets, and schedules for environmental satellites over the long-term—and the governance structure to implement that strategy. While the federal government has taken several steps to ensure the provision of environmental data from satellites for both climate and space weather in the short term, federal efforts to ensure the long-term provision of these environmental measurements are still lacking. Specifically, although both the climate and space weather communities have recently drafted reports for OSTP containing recommendations for climate and space weather satellites, respectively, the climate report focuses only on short-term needs and does not include longer term priorities, nor does it include budgets or schedules. Further, OSTP does not have plans for finalizing or releasing either the climate or space weather reports. Until an interagency strategy for environmental observation is established, and a clear process for implementing it is in place, federal agencies will continue to procure their immediate priorities on an ad hoc basis, the economic benefits of a coordinated approach to investments in earth observation may be lost, and our nation's ability to understand long-term climate changes may be limited.